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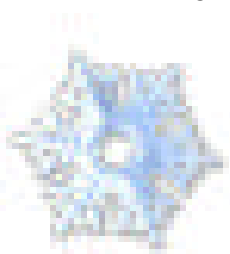
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HE marks holiday with bike donations

by Jill Bohn, AFRL Public Affairs

WRIGHT-PATTERSON AFB, Ohio — Each holiday season a group of employees from the Human Effectiveness Directorate (HE) come together not only to honor a former co-worker, but also to make a difference in the life of someone less fortunate. This year the group, known as Brian's Bikes, marks the donation of its 200th bicycle to the Montgomery and Greene County Department of Children's Services.

Brian's Bikes is a non-profit organization, which provides underprivileged children with bicycles at Christmas time.

The formation of Brian's Bikes seemed like a fitting way to remember computer specialist Brian Smith. The 30-year old avid biker was killed as the result of an automobile accident on August 28, 1996.

"When the folks from the Deployment and Sustainment Division decided to establish something in his memory, the choice was easy," said Cheryl Batchelor, committee spokesperson. "Brian would go out on weekends for marathon bike rides with family members or local groups.

"We are very excited about this endeavor and have actually looked to expand it to either directorate-wide or possibly including it as a CFC charity," according to Batchelor. The Combined Federal Campaign (CFC) is the annual fundraising drive in which federal employees and military personnel raise millions of dollars for thousands of non-

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A HELPING HAND — Human Effectiveness employees assemble bicycles that will be donated to underprivileged children this Christmas on behalf of the Brian's Bikes organization.

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<http://extra.afrl.af.mil/news/index.htm>

DE astronomer looks to stars

by **Conrad Dziewulski, Directed Energy Directorate**

KIRTLAND AIR FORCE BASE, N.M. – An astronomer with the Air Force Research Laboratory's Directed Energy Directorate recently achieved the second of his three lifetime astronomical goals.

On Nov. 18, Jack D. Drummond of the Starfire Optical Range had a clear night to observe this year's Leonids meteor shower, possibly the most spectacular shower of its type in more than 33 years. Meteorites fell at the rate of 1,000 an hour for short periods during early morning hours.

A typical meteor storm produces about 100 meteors an hour, but an increase in dust from the comet Tempel-Tuttle enhanced this year's celestial display. Though the last 33-year cycle storm occurred in 1966, with 200,000 meteors an hour visible over New Mexico, scientists have recently been able to more accurately predict the Leonids activities.

Drummond called the display "the best meteor shower I've ever seen."

Of special interest to Drummond are the lingering trails left in the wake of these meteors, which the University of Virginia graduate calls "glowworms in the sky."

"Normally, the trails last for a few seconds, but those associated with the Leonids can last up to an hour," he explained.

A self-sustaining catalytic process called chemiluminescence creates these trails. During the process, the element sodium is not destroyed but converts ozone to diatomic oxygen thus emitting light.

During the last three years, Drummond directed sodium lidar, a laser operating at visible wavelengths, to gather data from the lingering trails. The laser equipment, from the University of Illinois, is not available this year but he will continue his observation as a "meteor spotter" during a spectro-photometric experiment directed by Air Force reservist Lt. Col. David Barnaby, an astronomer at Western Kentucky University.

In 1991, the Astronomical Union honored Drummond by having an asteroid named after him, thereby giving him his first astronomical goal. His third is to witness a daytime fireball.

His 3-kilometer (1.8 mile) wide asteroid (4693) Drummond permanently orbits the Main Belt between Mars and Jupiter. The rare and spectacular daylight fireballs involve larger or rock-sized objects spawned from asteroids compared to the much smaller, comet-spawned meteors. They often make loud sounds when they fall or explode. @

Find additional Features on the web

AFRL provides significant impact on economy

Edwards Lab Commander earns promotion

Information Directorate honors scientists and engineers

Fran Crumb, Information Directorate

ROME, N.Y. — Four Air Force Research Laboratory Information Directorate scientists and engineers were presented with awards for scientific and technical achievement during the directorate's "Heritage Day" observance on Nov. 15.

The awards are named after former Rome Air Development Center (RADC) officials. RADC was established at the former Griffiss Air Force Base in June 1951, redesignated in 1990 as Rome Laboratory, and became part of the new AFRL in the fall of 1997.

Receiving awards for their achievements during the past year were: — The Maj. Gen. John C. Toomay Award: Maj. Steven V. Southwell, a program manager in the directorate's Information and Intelligence Exploitation Division.

The award honors a commissioned officer for a single notable achievement or outstanding contribution during the previous year which did not necessarily result in a single notable achievement, but contributed significantly to the overall effectiveness of the program. It is named for RADC's 9th commander, who served from Jan. 16, 1971, to May 22, 1972, and retired in 1979 after serving as deputy chief of staff for Plans and Programs at the former Air Force Systems Command, Andrews Air Force Base, Md.

A native of Flint, Mich., Major Southwell has been a member of the Rome staff since June 2000. He serves as a program manager for the Affordable Moving Surface Target Engagement (AMSTE) program. He holds a bachelor of science degree in computer engineering from the University of Illinois and earned a master of science in systems management from the Air Force Institute of Technology. Major Southwell was cited for his leadership, dedication, innovative program management and test program direction. His efforts led to successful operational demonstration of the AMSTE program, which significantly enhanced the Department of Defense's future battlefield time-critical strike capabilities.

— The Harry S. Davis Memorial Award: David C. Williamson. The award is presented each year to a laboratory scientist or engineer for outstanding technical achievement, usually contributing toward the solution of an operational problem. The award is named for the RADC chief scientist from 1952 to 1960 who later served in high Department of Defense positions, including deputy undersecretary of the Air Force.

Williamson, a native of North Syracuse, is a senior engineer in the Information Technology Division. He received bachelor of science and master's degrees in electrical engineering from Syracuse University. A member of the Rome staff for 12 years, Williamson was cited for his technical and team leadership that resulted in the development and successful launch of the microelectromechanical-

based Picosat Inspector (MEPSI). MEPSI demonstrated the capability to store a miniature "InfoBot" that can be released on command to conduct surveillance of the host spacecraft for independent situational awareness.

— The Oliver G. Tallman Memorial Award: Brian R. O'Hern. The award is named for the RADC director of engineering from 1951 to 1963, and is conferred annually on a scientist, engineer or technician chosen on the basis of outstanding engineering support achievement.

A resident of Canastota, O'Hern is a senior program manager engineer with Information and Intelligence Exploitation Division's Fusion Technology Branch. He holds a bachelor of science degree in electrical engineering from Clarkson University and earned a master's in the same field from Syracuse University.

O'Hern was cited for his engineering achievements in the design enhancement, development, management, and transition of the Moving Target Information eXploitation (MTIX) system. His efforts led to the direct transition of a major new capability to the warfighter and provides a direct path for fielding new capabilities that are currently under development in the laboratory. @

AFRL Holiday Happenings!



Bikes (from page 1)

profit charities.

Over the years, HE co-workers have collected gently used bicycles and donations for the purchase of new bicycles. In its first year, Brian's Bikes was able to gather 42 bikes in just four months for the cause.

This year, proceeds from working a food booth at the base July 4th celebration and donations collected at the Thanksgiving lunch allowed the group to surpass the 200 bicycle mark. So far in 2001, 45 bikes have been collected and a Fairborn retailer has cooperated by offering a discounted rate on the new bicycle purchases.

"It's a wonderful morale builder to get a group of folks together to put together bikes or fix them up," Batchelor said.

But, she notes, the experience is not to be outdone by the actual delivery of the bicycles to children's services.

"While most of the time you do not meet the actual beneficiaries, the workers at children's services are so thrilled to see us walk in, they are practically in tears," according to Batchelor.

In addition to much appreciated donations, the group is also seeking volunteers for the cause to help ensure its success.

For more information on Brian's Bikes, contact Brian Batchelor at (516) 433-0000.

AFRL announces annual Financial Management awards

by Jill Bohn, AFRL Public Affairs

WRIGHT-PATTERSON, AFB, Ohio — Phillip L. Mitchell has taken top honors as Financial Management and Comptroller of the Year in the FY2000 AFRL/FM Annual awards. Nominees in eleven categories were judged based upon mission performance. All award winners were announced on November 21. Selected finalists will compete at the Command level.

“This year’s winners exemplify the professionalism and consistently outstanding support provided by AFRL Comptroller personnel,” said Ron Runkel, Director of AFRL Financial Management. The awards program was established to recognize outstanding performers across AFRL’s ten Technology Directorates.

Mitchell, Chief of the Financial Management Division, Air Vehicles, successfully controlled support costs by increasing funding for direct project efforts by 320 percent. His efforts led to long-term technology increases and improvements, directly benefiting both present and future warfighters.

Hilda F. Loy, AFRL/MNF, was named the Financial Analysis Officer of the Year. Loy provided outstanding financial management support for the Advanced Development programs. Her knowledge of the programs status and rapport with program managers were key factors in ensuring that program funds were allocated.

Acquisition Cost Analyst of the Year honors went to Marie Ely, AFRL/MNF. Ely provided superb cost analysis support for the MN Directorate. She was responsible for cost/schedule, cost estimating, and cost analysis for programs valued at over \$102 million.

AFRL/VSF received the award for Financial Management and Comptroller Organization of the Year. The team comprised of 29 professionals were commended for executing a mission statement based on five key elements: advise on financial legality; receive, control and distribute funds; oversee/facilitate funds execution; analyze infrastructure costs; and oversee the Management Con-

trol Program for the entire directorate.

The award for Special Acts and Services was presented to AFRL/DEF Job Order Cost Accounting Branch System. The team produced vast leaps in quality service to Directed Energy and Space Vehicles Directorates by executing critical tasks during unexpected, lengthy, and varied personnel shortages.

1st Lt. Tracy Bell, AFRL/VAF, received recognition for Outstanding Contribution to Financial Management and Comptroller. Bell unearthed 16 percent overhead cost savings, resulting in a six year \$110 million reallocation of technology funding.

Patricia A. Swartz, AFRL/MNF, was named as the AFRL Budget Assistant of the Year. Swartz provided outstanding financial support for the directorate’s 6.2 technology programs and operating budget, totaling \$40 million dollars per year.

The Trainee of the Year award was presented to Carla J. Canales in AFRL/VAF. Canales expertly manages the \$15 million FY00 6.2 budget for the Structures Division of the Air Vehicles Directorate.

Eric Talley, AFRL/PRF, received the award for Professional Support. Talley performed a review and reconciliation of over 400 contractual documents in the Mechanization of Contract Accounting System and the official Accounting and Finance records.

Joanne L. Rossi, AFRL/IFF, was presented with the award for Financial Services Civilian (GS11 and above). Rossi was instrumental in the initial database testing for the Job Order Cost Accounting System. Her dedication ensured a seamless transition to Graphical User Interface.

Linda Spado, AFRL/IFF, was awarded as the Financial Services Civilian (GS10 and below). Spado displayed exceptional knowledge and understanding of reimbursement flow. Her skills in customer service provided quality and timely responses. @

Secretary, chief of staff send holiday greetings to all

WASHINGTON (AFPN) — The following is a holiday message from Secretary of the Air Force Dr. James G. Roche and Air Force Chief of Staff John P. Jumper:



“Season’s greetings!

“This holiday season marks the end of an emotional year for all Americans; a time reserved for reflecting on past events, counting blessings, and looking to the future and the promise of the new year.

“While the tragic events of Sept. 11, 2001 weigh heavily on the hearts of all Americans, our spirit continues to rise from the ashes of New York, Washington D.C., and Pennsylvania. America’s abundant blessings are more evident than ever; we now appreciate things once taken for granted. Our nation turned to its military for strength and character during this critical time and America’s military again answered her call.

“As in holidays past, America’s airmen can be found across the globe, in over 115 countries, making a stand for freedom and eliminating the scourge of terrorism. Like all Americans, these airmen cherish holidays spent with family and friends, but faithfully choose to serve their nation. America is blessed by your service.

“On behalf of a grateful nation, we give thanks for the selfless sacrifice of those who wear the uniform. Know that you and your families are foremost in our thoughts and prayers during this special season.” @

Materials engineer encourages youth down similar path

by Timothy R. Anderl, Materials and Manufacturing Directorate

WRIGHT-PATTERSON AIR FORCE BASE, Ohio — Materials and Manufacturing Directorate engineer Katie Thorp, a natural in math and science academia, followed a series of educational and career paths to become an in-house composite expert. Through her journey from student to Air Force engineer, Thorp has continually encouraged junior high and high school students to pursue their interests along an educational path that will help them achieve their goals.

“As far back as I can remember I’ve been interested in math and science,” Thorp said. “The excitement of understanding how things worked in the environment I lived in, in the human body and in solving other science-related mysteries really captured my interest.”

Her own enjoyment of those subjects led Thorp from Pasco, Wash., the small town where she grew up, to the University of Washington in Seattle, where she majored in ceramic engineering.

“I started out as a chemical engineering student, but decided to reconsider when I realized that I didn’t enjoy organic chemistry. So, I went to see a biology counselor who encouraged me to stick with an engineering program. It turned out that ceramic engineering was a natural match with my course preferences,” Thorp explained of her educational background.

Thorp was a graduate student at the university when she teamed up with a friend to develop a science education partnership in the Seattle area. The partnership was designed to introduce elementary school and junior high students to science and to hone the presentation skills of undergraduate students at the university.

“We wanted to create a program to take out to the local schools and my friend had been involved in a similar program with a northwest laboratory to pattern our program after,” Thorp said. “We developed a kit that had a series of different science experiments for students to participate in. We also wrote up a text that undergraduates would present while they were in the classroom.”

Meanwhile, Thorp was working on her senior research project, which was funded by the AFRL. She credits her laboratory mentor, Fred Hedberg for encouraging her to make the move to Ohio from Seattle, upon completion of her master’s degree.

Thorp came to the directorate in 1991 as part of a University of Dayton Research Institute (UDRI) onsite contract for research in biotechnology. The UDRI program provided her with tuition reimbursement on her Materials Engineering Ph.D. at the University of Dayton. She completed in 2001 the program while working in the laboratory.

Thorp has volunteered with the Scanning Electron Microscope Educators Programs (SEMEDS), an educational outreach program designed to interest local junior high and high school students in science. The SEMEDS program, which has been around since 1990, introduces students to the base and AFRL and allows them to explore materials with scanning electron microscopes.

“When I first interviewed for my job with UDRI, the gentleman who brought me here immediately introduced me to Dr. Wade



Katie Thorp

Adams. Chief Scientist Wade had just started the SEMEDS program in 1990 and encouraged me to become involved with it,” Thorp said.

When students attend SEMEDS, volunteers explain about work being done in the laboratory and share their diverse educational backgrounds, while encouraging students to explore differing materials and specimens using the microscopes.

Thorp said she often sees the payoff of volunteering for the directorate’s outreach programs. She recently encountered a student, who was introduced to the directorate through the SEMEDS program, working in the laboratory. He had returned as part of a Southwest Ohio Council for Higher Education program, which provides students at Ohio universities the opportunity to work in the lab on research projects.

In 1998, Thorp was hired as a temporary government employee of the directorate and was hired as permanent within the year. As a permanent employee, she does polymer matrix composite work. She studies environmental effects, such as heat and moisture, on composites that are used in high temperature applications, such as jet engines.

“I do a lot of basic research for the Air Force and have spent the last 10 years developing an understanding of the molecular development and degradation of systems that are built with high temperature polymers,” Thorp said. “Just recently we were able to develop new materials for an aircraft based on the results of the research we’d been doing. It is exciting to know that something I’ve had a hand in is going to be part of an aircraft.

“I am certain that some of the students that attend the SEMEDS program will someday play a part in the research and development of future materials that will impact future Air Force systems too.”

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Net Index

Due to the number of submissions we receive, some sections of *news@afrl* are available exclusively on-line. The on-line version of the newsletter allows users to view the AFRL corporate calendar, news releases generated by AFRL headquarters, operating instructions, L@b L@urels and Roundups sections.

The L@b L@urels section of the electronic newsletter is dedicated to members of Air Force Research Laboratory who receive awards and honors. The Roundups section of the electronic newsletter keeps Air Force Research laboratory employees informed about contracts AFRL has awarded. Below is an index of articles one can find in each of these on-line sections.

Roundups

L@b L@urels

- **AFRL Rome awards \$2.6M contract to BBNT Solution**
- **AFRL Rome research focused on software radio**
- **Directorate honors contractor personnel**
- **Rooks named as IF Engineer of the year**
- **Employees honored for support and research**

To view the full text of these and other articles visit the *news@afrl* page on the Internet at <http://extra.afrl.af.mil/news/index.htm>.

To submit L@b L@urels or Roundups from your directorate, send a query to AFRL Public Affairs at:

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Seasons Greetings from AFRL Public Affairs



Air Force photos by Lee Gephart, AFRL DS

